

SEQUENCE LISTING

<110> Bock, Susan C.
 Picard, Veronique
 Zendehrouh, Pedram

<120> Human Antithrombin IIIs and Methods Related Thereto

<130> 21101.0004U3

<140> 10/014,658

<141> 2001-12-11

<150> 09/305,588

<151> 1999-05-05

<150> 60/085,197

<151> 1998-05-12

<160> 35

<170> PatentIn Ver. 4.0

<210> 1

<211> 9

<212> PRT

<213> Homo sapiens

<400> 1

Ser Thr Ala Leu Glu Ala Ile Gly Arg

<210> 2

<211> 9

<212> PRT

<213> Homo sapiens

<400> 2

Ser Thr Glu Val Glu Ala Ala Gly Arg

<210> 3

<211> 9

<212> PRT

<213> Homo sapiens

```
<400> 3
Ser Thr Ala Val Glu Ala Ala Gly Arg
<210> 4
<211> 9
<212> PRT
<213> Homo sapiens
<400> 4
Ser Thr Glu Gly Phe Phe Ser Gly Arg
<210> 5
<211> 9
<212> PRT
<213> Homo sapiens
Ser Thr Glu Gly Glu Ala Ser Gly Arg
1
<210> 6
<211> 9
<212> PRT
<213> Homo sapiens
Ser Thr Glu Gly Glu Gly Ser Gly Arg
<210> 7
<211> 9
<212> PRT
<213> Homo sapiens
Ser Glu Glu Gly Glu Ala Ser Gly Arg
<210> 8
<211> 9
<212> PRT
<213> Homo sapiens
<400> 8
Ser Glu Glu Gly Glu Gly Ser Gly Arg
<210> 9
<211> 9
```

```
<212> PRT
<213> Homo sapiens
<400> 9
Ser Thr Ala Val Glu Gly Ala Gly Arg
                 5
<210> 10
<211> 9
<212> PRT
<213> Homo sapiens
<400> 10
Ser Thr Glu Val Glu Gly Ala Gly Arg
<210> 11
<211> 9
<212> PRT
<213> Homo sapiens
<400> 11
Ser Thr Glu Leu Glu Gly Ala Gly Arg
<210> 12
<211> 9
<212> PRT
<213> Homo sapiens
<400> 12
Ser Thr Ala Leu Glu Gly Ala Gly Arg
<210> 13
<211> 9
<212> PRT
<213> Homo sapiens
<400> 13
Ser Thr Ala Glu Gly Gly Gly Arg
<210> 14
<211> 9
<212> PRT
<213> Homo sapiens
<400> 14
Ser Thr Gln Thr Pro Pro Asn Gly Arg
<210> 15
<211> 9
```

```
<212> PRT
<213> Homo sapiens
<400> 15
Ser Thr Ala Val Phe Phe Ala Gly Arq
<210> 16
<211> 1525
<212> DNA
<213> Homo sapiens
<400> 16
gatcacacta totocacttg cocagocotg tggaagatta goggocatgt attocaatgt 60
gataggaact gtaacctctg gaaaaaggaa ggtttatctt ttgtccttgc tgctcattgg 120
cttctgggac tgcgtgacct gtcacgggag ccctgtggac atctgcacag ccaagccgcg 180
qqacattccc atqaatccca tqtqcattta ccqctccccq qaqaaqaaqg caactgagga 240
tgagggctca gaacagaaga tcccggaggc caccaaccgg cgtgtctggg aactgtccaa 300
ggccaattcc cgctttgcta ccactttcta tcagcacctg gcagattcca agaatgacaa 360
tgataacatt ttcctgtcac ccctgagtat ctccacggct tttgctatga ccaagctggg 420
tgcctgtaat gacaccetee agcaactgat ggaggtattt aagtttgaca ecatatetga 480
gaaaacatct gatcagatcc acttcttctt tgccaaactg aactgccgac tctatcgaaa 540
agccaacaaa tootocaagt tagtatoago caatogoott tttggagaca aatocottac 600
cttcaatgag acctaccagg acatcagtga gttggtatat ggagccaagc tccagcccct 660
ggacttcaag gaaaatgcag agcaatccag agcggccatc aacaaatggg tgtccaataa 720
gaccgaaggc cgaatcaccg atgtcattcc ctcggaagcc atcaatgagc tcactgttct 780
ggtgctggtt aacaccattt acttcaaggg cctgtggaag tcaaagttca gccctgagaa 840
cacaaggaag gaactgttct acaaggctga tggagagtcg tgttcagcat ctatgatgta 900
ccaggaaggc aagttccgtt atcggcgcgt ggctgaaggc acccaggtgc ttgagttgcc 960
cttcaaaggt gatgacatca ccatggtcct catcttgccc aagcctgaga agagcctggc 1020
caaggtggag aaggaactca ccccagaggt gctgcaggag tggctggatg aattggagga 1080
gatgatgctg gtggttcaca tgccccgctt ccgcattgag gacggcttca gtttgaagga 1140
gcagetgcaa gacatgggce ttgtcgatet gttcagecet gaaaagteca aacteecagg 1200
tatigtigca gaaggeegag atgaceteta igteteagat geatteeata aggeattiet 1260
tgaggtaaat gaagaaggca gtgaagcagc tgcaagtacc gctgttgtga ttgctggccg 1320
ttcgctaaac cccaacaggg tgactttcaa ggccaacagg cccttcctgg tttttataag 1380
agaagtteet etgaacacta ttatetteat gggeagagta geeaaceett gtgttaagta 1440
aaatgttett attetttgea eetetteeta tttttggttt gtgaacagaa gtaaaaataa 1500
atacaaacta cttccatctc acatt
                                                                   1525
<210> 17
<211> 36
<212> DNA
<213> Homo sapiens
<400> 17
accgcggaag gaggaggcgg ccgttcgcta aacccc
                                                                   36
<210> 18
<211> 29
<212> DNA
<213> Homo sapiens
<400> 18
                                                                   29
accgctgttt tcttcgccgg ccgttcgct
```

<210> 25

<210><211><212><212><213>	48 DNA	sapiens				
<400>	19					
accgaa	iggtt	tettetetgg	ccgttcttta	aaccccaaca	gggtgact	48
<210><211><212><212><213>	48 DNA	sapiens				
<400> acccaa		tcttcaacgg	ccgaagctta	aaccccaaca	gggtgact	48
<210><211><211><212><213>	34 DNA	sapiens				
<400> ctgcaa		tgaaggtgaa	gcttctggcc	gttc		34
<210><211><211><212><213>	34 DNA	sapiens				
<400> ctgcaa		tgaaggtgaa	ggttctggcc	gttc		34
<210><211><211><212><213>	40 DNA	sapiens				
<400> aagcag		tagcgaagaa	ggtgaagctt	ctggccgttc		40
<210><211><211><212><213>	40 DNA	sapiens				
<400> aagcag		tagcgaagaa	ggtgaaggtt	ctggccgttc		40

<211> 32 <212> DNA <213> Homo	sapiens	
<400> 25 ctgcaagtac	tgctgttgaa ggtgctggcc gt	32
<210> 26 <211> 32 <212> DNA <213> Homo	sapiens	
<400> 26 ctgcaagtac	tgaggttgaa ggtgctggcc gt	32
<210> 27 <211> 32 <212> DNA <213> Homo	sapiens	
<400> 27 ctgcaagtac	tgagcttgaa ggtgctggcc gt	32
<210> 28 <211> 32 <212> DNA <213> Homo	sapiens	
<400> 28 ctgcaagtac	tgctcttgaa ggtgctggcc gt	32
<210> 29 <211> 32 <212> DNA <213> Homo	sapiens	
<400> 29		
ctgcaagtac	tgctgttgag gctgctggcc gt	. 32
<210> 30 <211> 32 <212> DNA <213> Homo	sapiens	
<400> 30 ctgcaagtac	tgaggttgag gctgctggcc gt	32
<210> 31 <211> 18 <212> DNA <213> Homo	sapiens	

)> 31 :gttg		gaagg	gccg												18
<211 <212)> 32 L> 16 2> DI 3> Ho	JA	sapie	ens												
	4400> 32 accagctatg accatg													16		
<211 <212)> 33 L> 24 2> DN B> Ho	IA I	sapie	ens												
)> 33 ggata		aattt	caca	ac ag	gga										24
<211 <212)> 34 L> 36 P> DI B> Ho	5 JA	sapie	ens												
<400> 34 tagcgaacgg ccgatagcct caagagcggt acttgc												3 6				
<211 <212)> 35 l> 43 l> PF l> A1	32 RT	icial	l Sed	quenc	ee										
<220 <223	3> De				E Art		cial	Sequ	ience	∍:/no	ote =	=				
<400)> 35	5														
His	Gly	Ser	Pro	Val	Asp	Ile	Cys	Thr	Ala 10	Lys	Pro	Arg	Asp	Ile 15	Pro	
Met	Asn	Pro	Met 20	Cys	Ile	Tyr	Arg	Ser 25		Glu	Lys	Lys	Ala 30		Glu	
Asp	Glu	Gly 35		Glu	Gln	Lys	Ile 40		Glu	Ala	Thr	Asn 45		Arg	Val	
Trp	Glu 50		Ser	ŗys	Ala	Asn 55		Arg	Phe	Ala	Thr 60		Phe	Tyr	Gln	
His 65		Ala	Asp	Ser	Lys 70		Asp	Asn	Asp	Asn 75		Phe	Leu	Ser	Pro 80	
	Ser	Ile	Ser	Thr 85	Ala	Phe	Ala	Met	Thr 90		Leu	Gly	Ala	Cys 95		
Asp	Thr	Leu	Gln 100		Leu	Met	Glu	Val 105		Lys	Phe	Asp	Thr 110		Ser	
Glu	Lys	Thr		Asp	Gln	Ile	His		Phe	Phe	Ala	Lys		Asn	Cys	

Arg		Tyr	Arg	Lys	Ala		Lys	Ser	Ser	Lys	Leu 140	Val	Ser	Ala	Asn
Arg 145	130 Leu	Phe	Gly	Asp	Lys 150	135 Ser	Leu	Thr	Phe	Asn 155		Thr	Tyr	Gln	Asp 160
	Ser	Glu	Leu	Val 165	Tyr	Gly	Ala	Lys	Leu 170		Pro	Leu	Asp	Phe 175	
			180		Ser	_		185			_	_	190		
_		195	_	_	Ile		200					205			
	210				Val	215					220				
225	•		•		Ser 230					235	-				240
-			-,	245	Ser	_			250			_		255	_
_		_	260	_	Arg			265.	_				270		
		275	_	_	Asp		280					285		-	
	290				Lys	295		_			300				
305		•		•	Glu 310					315					320
	_			325	Glu				330					335	
-		_	340		Asp			345					350		
•		355			Gly	_	360	-		•		365	-		
	370				Glu	375				_	380				
385					Ile 390		-	_	•	395				_	400
		•		405	Arg				410			_		415	
Leu	Asn	Thr	Ile 420	Ile	Phe	Met	Gly	Arg 425	Val	Ala	Asn	Pro	Cys 430	Val	Lys